



# Oracle Database 12c: Backup and Recovery Workshop

Varighed: 5 Days Kursus Kode: D78850GC10

#### Beskrivelse:

This Oracle Database 12c: Backup and Recovery Workshop will teach you how to evaluate your own recovery requirements. You'll develop appropriate strategies for backup, restore and recovery procedures from provided scenarios.

#### Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling consolidation onto database clouds.

#### **Perform Backup and Recovery**

Expert instructors will begin by helping you gain a deeper understanding of possibly the most important job of a Database Administrator – backup and recovery. The concepts and architecture that support backup and recovery, along with the steps required to carry it out in various ways and situations, are covered in detail.

#### **Recovery Manager Command Line and Graphical Interfaces**

This course will teach you about Recovery Manager (RMAN) command line and graphical interfaces for various backup, failure, restore and recovery scenarios.

## Participate in Hands-on Practices and Workshops

Participating in extensive hands-on practices and workshops will help you gain experience in a realistic technical environment. Interactive workshops give you the opportunity to diagnose and recover from numerous failure scenarios, based on backup and recovery case studies. **Key Takeaways** 

Upon completing this course, you will know how to evaluate your own recovery requirements. You'll have the skills to develop an appropriate strategy for backup and recovery procedures.

## Målgruppe:

DatabaseadministratorData Warehouse-administratorTeknisk konsulent

## Agenda:

- Describe Oracle Database backup methods and recovery operations that can be used to resolve database failure.
- Describe the Oracle Database architecture components related to backup and recovery operations.
- Plan effective backup and recovery procedures.
- Configure the database for recoverability.
- Use Recovery Manager (RMAN) to create backups and perform recovery operations.

- Use the Data Recovery Advisor to diagnose and repair failures.
- Use Oracle Flashback Technologies to recover from human error.
- Perform an encrypted database backup and restore.
- Perform tablespace point-in-time recovery.
- Describe additional high availability features such as Oracle Data Guard.

## Forudsætninger:

## **Required Prerequisites:**

- Knowledge of Oracle Database 12c
- Knowledge of SQL and PL/SQL
- Oracle Database 12c: Administration Workshop NEW

#### **Suggested Prerequisites:**

Using Oracle Enterprise Manager Cloud Control 12c NEW Recommended Related Training Courses:

Oracle Database 12c: Global Data Services NEWThis Oracle Database 12c: Global Data Services seminar introduces Oracle Database 12c Global Data Services (GDS). You'll learn how to

install, configure, administer and use Global Data Services.

Oracle WebLogic Server 12c: Administration IThis Oracle WebLogic Server 12c training teaches administrators how to perform the most important Oracle WebLogic Server administrative tasks. Get an overview of the architecture and concepts of Oracle WebLogic Server.

Oracle Database 12c: Data Guard Administration NEWThis Oracle Database 12c: Data Guard Administration Ed 1 training teaches you how to use Oracle Data Guard. Learn how it protects your Oracle database against planned and unplanned downtimes.

Oracle Database 12c: Performance Management and Tuning NEWIn the Oracle Database 12c: Performance Management and Tuning course, learn about the performance analysis and tuning tasks expected of a DBA.

Oracle Database 12c: Clusterware Administration NEWThis Oracle Database 12c: Clusterware Administration training will help you become familiar with general cluster concepts and Oracle Clusterware architecture. Learn from expert Oracle University instructors.

Oracle WebLogic Server 12c: Administration IIThis Oracle WebLogic Server 12c course trains administrators how to perform important Oracle WebLogic Server administrative tasks. It is a continuation of the Oracle WebLogic Server 12c: Administration I course.

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#### Indhold:

#### Introduction

- Curriculum Context
- Assess your Recovery Requirements
- Categories of failures
- Oracle Backup and Recovery Solutions
- Oracle Maximum Availability Architecture
- Oracle Secure Backup
- Benefits of using Oracle Data Guard
- Basic Workshop Architecture

## **Getting Started**

- Core Concepts of the Oracle Database, Critical for Backup and Recovery
- Oracle DBA Tools for Backup and Recovery
- Connecting to Oracle Recovery Manager (RMAN)
- Quick Start: A Problem-Solution Approach

## Configuring for Recoverablility

- RMAN commands
- Configuring and managing persistent settings
- Using the Fast Recovery Area (FRA)
- Control File
- Redo Log File
- Archiving Logs

#### Using the RMAN Recovery Catalog

- Creating and Configuring the Recovery Catalog
- Managing Target Database Records in the Recovery Catalog
- Using RMAN Stored Scripts
- Maintaining and Protecting the Recovery Catalog
- Virtual Private Catalogs

## Backup Strategies and Terminology

- Backup Solutions Overview and Terminology
- Balancing Backup and Restore Requirements
- Backing Up Read-Only Tablespaces
- Best Practices for Data Warehouse Backups
- Additional Backup Terminology

#### Performing Backups

- RMAN Backup Types
- Incrementally Updated Backups
- Fast Incremental Backup
- Block Change Tracking
- Oracle-Suggested Backup
- Reporting on Backups
- Managing Backups

## Improving Your Backups

Compressing Backups

## Using RMAN-Encrypted Backups

- Creating RMAN-Encrypted Backups
- Using Transparent-Mode Encryption
- Using Password-Mode Encryption
- Using Dual-Mode Encryption

#### Diagnosing Database Failures

- Reducing Problem Diagnosis Time
- Automatic Diagnostic Repository
- Interpreting RMAN Message Output and Error Stacks
- Data Recovery Advisor
- Diagnosing Data File Loss (file system and ASM)
- Handling Block Corruption

#### Restore and Recovery Concepts

- Restoring and Recovering
- Instance Failure and Instance/Crash Recovery
- Media Failure
- Complete Recovery (Overview)
- Point-in-Time Recovery (Overview)
- Recovery Through RESETLOGS

#### Performing Recovery, Part 1

- RMAN Recovery in NOARCHIVELOG Mode
- Performing Complete Recovery (of critical and noncritical data files)
- Restoring ASM Disk Groups
- Recovery with Image Files
- Performing Point-in-Time (PITR) or Incomplete Recovery
- Table Recovery from Backups

## Performing Recovery, Part 2

- Recovery of Server Parameter File,
  Control File
- Redo Log File Loss and Recovery
- Password Authentication File Re-creation
- Index, Read-Only Tablespace, and Tempfile Recovery
- Restoring the Database to a New Host
- Disaster Recovery
- Restoring RMAN Encrypted Backups

## RMAN and Oracle Secure Backup

- Oracle Secure Backup Overview
- Oracle Database Disk and Tape Backup Solution
- Backing Up the Fast Recovery Area to Tape
- Defining Retention for RMAN Backups
- RMAN and Oracle Secure Backup Basic Process Flow
- Integration with Cloud Control
- RMAN Database Backup to Tape

#### Using Flashback Technologies

- Flashback Technology: Overview and Setup
- Using Flashback Technology to Query Data
- Flashback Table
- Flashback Transaction (Query and Backout)
- Flashback Drop and the Recycle Bin
- Flashback Data Archive

## Using Flashback Database

- Flashback Database Architecture
- Configuring Flashback Database
- Performing Flashback Database
- Best Practices for Flashback Database

# Managing Backup Space or Transporting

- Transporting Tablespaces
- Transporting Databases

## Duplicating a Database

- Using a Duplicate Database
- Choosing Database Duplication Techniques
- Creating a Backup-up Based Duplicate Database
- Understanding the RMAN Duplication Operation
- Using Cloud Control to Clone a Database

## RMAN Performance and Tuning

- Tuning Principles
- RMAN Multiplexing
- Diagnosing Performance Bottlenecks
- Restore and Recovery Performance Best Practices

## Backup and Recovery Workshop

- Workshop Structure
- Workshop Approach to Solving Failure Scenarios
- Business Requirements for Database Availability and Procedures

- Using a Media Manager
- Creating RMAN Multisection Backups, Proxy Copies, Duplexed Backup Sets and Backups of Backup Sets
- Creating and Managing Archival Backups
- Backing Up Recovery Files
- Backing Up the Control File to a Trace File
- Cataloging Additional Backup Files
- Backing Up ASM Disk Group Metadata

Performing Tape Backups and Restores

- Scheduling Backups with EM
- Oracle-Suggested Backup
- RMAN and OSB Process Flow
- RMAN and Oracle Secure Backup Jobs
- Managing Database Tape Backups
- Performing Database Recovery
- RMAN Automatic Failover to Previous Backup

## Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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